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ABSTRACT

This document presents the results of a program-evaluation questionnaire given to elementary-school teachers in the State College Area School District, Pennsylvania. These teachers participated in an environmental education program under the auspices of an ESEA Title III Grant. The objectives of the program were to provide in-service activities in the areas of need indicated by the teachers , to provide teachers with models of units of study and help them to plan and carry out a unit, and to provide them with resource materials. The questionnaire consists of 45 statements focused on the following aspects: curriculum revisions, staff identification, resident programming, on-site development, teacher preparation and material dissemination, evaluation, and an open-ended section to solicit comments. Results are reported in blocks of questions related to the above aspects and analyzed by primary and intermediate levels. Discussions of the results and teacher-related comments are included for each of these sections. This work was prepared under an ESEA Title III contract. (JP)

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A STUDY OF ELEMENTARY TEACHER'S OPINIONS

AN EVALUATION

Environmental Education Project

State College Area School District

Margaret A. Ferrier, Study Director

June, 1972

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ENVIRONMENTAL EDUCATION PROJECT

A STUDY OF ELEMENTARY TEACHER OPINIONS

INTRODUCTION

The main function of the Environmental Education Project is to provide services which help relate the environment to education through inservice workshops, on-site programs, resident outdoor school and material dissemination. A District-wide study was undertaken to determine the reaction of all elementary teachers (grades one through six) to the Project. The report of this study has been divided into two areas: background of the project and the study, results and interpretation.

I. BACKGROUND

Environmental Education Project

In the Fall of 1971 State College Area Schools began operating an environmental education program under the auspices of an ESEA Title III Grant. The objectives* of the program were to:

A. In-Service

1. Provide teachers with assistance in the areas of environmental education where they see themselves as having the greatest need.

2. Provide the teacher with four avenues for receiving this assistance: Workshops, one to one help in planning and carrying out of a unit, teacher observation of units in operation, and resource material.

* As revised in the Spring of 1972 by the Program Coordinator and Materials Developer.

B. Experiences for Students

1. We will identify environmental education activities that will provide meaningful experiences for each student on his own grade level.

2. Each student, in the grades K-6 will be given the opportunity to participate in at least one environmental education oriented experience.

3. The student will be able to better relate to himself and to members of his group, as well as other individuals, as a result of environmental education activities.

4. Through cognitive processes the student will develop an understanding of man's interrelationship with the environment.

C. Development of Curriculum Materials

1. Environmental education materials will be developed to help meet the teacher's and student's individual needs.

2. An Environmental Education Resource Center consisting of reference materials and related equipment will be developed to service participating schools.

3. Upon completion of the first year's program, the material resource staff members will be responsible for compiling the materials developed by the program and staff. The compiled materials will then be made available to the school staff for their use.

4. Project personnel will assist teachers in the planning, writing and development of new materials and units to support the environmental education curriculum.

5. A descriptive list of resource persons for environmental education programs will be compiled.

6. A descriptive list of possible environmental field trips will be compiled.

D. Parental Involvement

1. To inform parents of the Environmental Education Project and its contribution to the program of the participating schools.

2. To have parents participate on the Environmental Education Advisory Council.

3. To involve parents in the program through orientation sessions and evaluation feedback for the resident program.

4. To involve parents and community members as resource personnel for on-site and field trip experiences.

During the 1971-1972 school year elementary children and classroom teachers have been involved with the following aspects of the project:

Orientation program for administration and faculty of all elementary buildings.

On-site programs

15 - 1st grade teachers with approximately 366 students
12 - 2nd grade teachers with approximately 283 students
14 - 3rd grade teachers with approximately 376 students
16 - 4th grade teachers with approximately 421 students
17 - 5th grade teachers with approximately 501 students
12 - 6th grade teachers with approximately 377 students

Resident programs

11 - Intermediate division (Continuous progress schools) teachers with approximately 300 students
1 - 3rd grade teacher with approximately 27 students
3 - 4th grade teachers with approximately 78 students
7 - 5th grade teachers with approximately 188 students
13 - 6th grade teachers with approximately 377 students

Scope of the Questionnaire

A questionnaire containing forty statements and a summated scale was devised. The questionnaire attempted to assess teachers' opinions of the following aspects of the environmental education project: Curriculum revisions, Staff identification, Resident programming, On-site development, Teacher preparation and Material dissemination, Evaluation. An open-ended query was the last item of the questionnaire. Respondents were asked to check the response that best expressed the way they felt about the statement: agree, disagree, no opinion.

The questionnaire was then sent to the following personnel and their comments were solicited: Dr. William Babcock, Dr. Robert Campbell, Mr. Robert Hughes, Mr. Gary Owen, Dr. Betty van der Smissen, Dr. Jerold Elliott, Miss Judy Myers, Mr. Tom Willson, Miss Grace McDermott, Mr. Jay Kaplan, and Miss Michelle Conrad. All recommendations were considered and appropriate revisions were made. The revised questionnaire consisted of forty-five statements and focused on these aspects:

Items	1	- 8	Curriculum revisions
Items	9	- 21	Staff identification
Items	22	- 29	Resident programming
Items	30	- 34	On-site development
Items	35	- 41	Teacher preparation and material dissemination
Items	42	- 44	Evaluation
Item	45		Comment

Administration of the Questionnaire

On April 24, 146 questionnaires were sent to the elementary teachers of the State College Area Schools. 131 or 89% of the questionnaires were returned, 67 or 87% from teachers of primary grade students and 62 or 89% from teachers of intermediate grade students.

II. RESULTS OF THE QUESTIONNAIRE

This section has been divided into the areas of assessment of the questionnaire with discussions for many of the statements being presented in numerical order. Following the discussion, the group of related statements from the questionnaire were presented. Next, a table of responses, showing the percentages for the scale with the number of respondents in parenthesis, were cited. As shown in the tables, the respondents for this study were classified and analyzed according to these categories:

All teachers
Teachers of primary students
Teachers of intermediate students
Teachers of primary students not involved in the environmental education project
Teachers of intermediate students not involved in the environmental education project
Teachers of intermediate students who were involved in the resident program with or without other aspects
Teachers of intermediate students who were involved in other aspects than the resident program

Lastly, without editing, the teachers comments - to many of the statements were listed.

Curriculum Revisions

This set of statements dealt with clarification of terms, curricular responsibility for the inclusion of environmental education, and emphasis within the environmental education curriculum. Half of the elementary teachers of State College Area seem to have a clear understanding of the term, environmental education, with four-fifths of them acknowledging an understanding of the relationship of environmental education to their classroom. (See Table I: Statement #1 and #2.)

This study seems to indicate that environmental education should be integrated into all areas of the curriculum. That is, three-fourths of the teachers felt that environmental education should not be a separate subject. Also, the teachers who had participated in the resident program unanimously agreed that environmental education should be integrated into all areas of the curriculum. Futhermore, this group unanimously disagreed that environmental education should be taught as an entity. (See Table I: Statements #3 and #4.)

More than three-fifths of the teachers preferred that there be a District-wide environmental education curriculum rather than a building-centered curriculum with no child being eliminated from any aspect of the environmental education program. The environmental curriculum should stress human communities, natural communities, and social responsibility as attested to by 90% of the elementary teachers. (See Table I: Statements #5, #6, #7, and Table 1A.)

CURRICULUM REVISIONS STATEMENTS FOR TABLE I

1. Environmental education is a vague term.

2. I am not certain how environmental education relates to my classroom.

3. Environmental education is a separate subject and should be taught as an entity.

4. Environmental education should be integrated into all areas of the curriculum.

5. There should be a District-wide environmental education curriculum.

6. Each of the schools in the State College Area Schools should develop its own environmental education curriculum.

7. No child should be eliminated from any aspect of the environmental education program.

TABLE 1-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO CURRICULUM REVISIONS

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
1.	38	56	6	(124)	34	59	6	(64)	42	53	5	(60)
2.	14	81	6	(124)	17	75	8	(64)	10	87	3	(60)
3.	6	91	2	(125)	6	92	2	(64)	7	90	3	(61)
4.	94	4	2	(126)	91	6	3	(65)	97	2	2	(61)
5.	63	16	21	(127)	61	13	25	(67)	65	18	17	(60)
6.	35	46	19	(122)	36	44	20	(64)	34	48	17	(58)
7.	72	14	14	(125)	73	12	15	(66)	71	17	12	(59)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 1-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
1.	48	44	7	(27)	50	50	--	(8)
2.	30	56	15	(27)	44	56	--	(9)
3.	11	86	4	(28)	--	89	11	(9)
4.	86	10	3	(29)	89	--	11	(9)
5.	57	17	27	(30)	22	33	44	(9)
6.	34	48	17	(29)	22	44	33	(9)
7.	83	10	7	(29)	67	22	11	(9)

TABLE 1-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
1.	50	43	7	(30)	27	68	5	(22)
2.	7	90	3	(29)	--	95	5	(22)
3.	--	100	--	(30)	18	77	5	(22)
4.	100	--	--	(30)	95	5	--	(22)
5.	73	13	13	(30)	71	19	10	(21)
6.	23	63	13	(30)	58	26	16	(19)
7.	67	20	13	(28)	80	10	10	(20)

TABLE 1 - D

8. The emphasis of the environmental curriculum should be: (UNDERLINE ONE: human communities, natural communities, social responsibility, all of these, none of these).

	Human Communities	Natural Communities	Social Responsibilities	All Of These	None Of These	(N)
ALL	--	2	7	91		(123)
PRIMARY	--	2	9	89		(65)
INTERMEDIATE	--	2	5	93		(58)
PRIMARY (no involvement)	--	--	17	83		(29)
INTERMEDIATE (resident with or without other aspects)	--	--	4	96		(28)
INTERMEDIATE (other than resident)	--	5	9	86		(22)
INTERMEDIATE (no involvement)	--	--	--	100		(8)

TEACHER COMMENTS ON CURRICULUM REVISIONS*

Statement #1

"As this questionnaire indicates, I feel rather poorly informed about 'what is environmental education' -- and its implications for a primary teacher. I am poorly informed as to the present program in State College, its staffing, funding, etc. I would like to attend a workshop which would inform teachers as to the programs availability and usefulness for primary teachers."

"Sorry! I am not familiar enough to have definite opinions on environmental education. I do feel it is an absolute necessity for survival that children be taught respect for and care of their environment."

"I must admit I know absolutely nothing concerning the Environmental Education Program. So it was difficult to answer some questions. However, I would be willing to find out more about the program."

Statement #4

"I feel Environmental Education should be correlated with subjects already taught - like science and social studies rather than taught as a separate area of study."

"Every means available to afford opportunities for children to relate to their own living environment should be incorporated into our program. Certainly, environmental education will do this effectively. I support this addition 100%."

"I definitely feel that environmental education needs to become more a part of the classroom. I also feel that as a classroom teacher I require expert guidance and assistance in developing an integration of classroom curriculum with the outdoors."

* These comments have not been edited.

Staff Identification

Statements within this grouping were concerned with identifying the responsbiility of the classroom teacher for the project, the role of Penn State University in the project, the duties of the environmental education staff, and the time devoted to the project by the Coordinator. To each of the statements in this grouping, the teachers of primary students responded with "no opinion" more frequently than did the teachers of intermediate students.

From the data collected, it would appear that three-fourths of the teachers desire released time to work on and plan environmental education, and desire remuneration if the activity extends beyond the normal school day. (See Table 2: Statements #9 and #10.) As can be noted, more than one-half of the teachers in the study felt that the District should provide the permanent staff for the project, and that the teachers should prepare themselves to conduct the program. The involvement of Penn State in the project seems to be a contractual relationship for resources and consultant services as indicated by three-fourths of the respondents. (See Table 2: Statements #11 - #15.)

Over four-fifths of the teachers indicated that the environmental education staff should help the teachers plan lessons, while three-fifths of the teachers want this staff to make arrangements for environmental-related field trips. When the duty of the environmental staff was identified as planning and executing these lessons, the percentage of disagreement increased. Likewise, more than one-half of the teachers do not want the environmental education staff to be responsible for teaching all on-site activities. (See Table 2: Statements #16-19.)

According to responses from one-half of the elementary teachers, the Environmental Education Coordinator should devote full-time to the program. On this item, one-fourth of the teachers have "no opinion" on the matter. (See Table 2: Statements #20-21.)

STAFF IDENTIFICATION STATEMENTS FOR TABLE 2

9. Teachers should receive remuneration for extra-time (beyond the normal school day) spent in planning environmental education activities.

10. Teachers should be given released time to work on environmental education units.

11. The State College Area classroom teachers should carry the responsibility of initiating and maintaining the environmental education program.

12. State College Area Schools should provide the permanent staff for the environmental education project.

13. As soon as possible, the Pennsylvania State University should be phased from the project.

14. The State College Area teachers should solicit help from the University, but should prepare themselves to conduct the environmental education program independently.

15. The State College Area Schools should maintain a contractual relationship for resource and consultant services with Pennsylvania State University.

16. The environmental education staff should help the teachers plan lessons which show the interrelationship of man to his environment.

17. The environmental education staff should help the teacher plan and execute lessons which show the interrelationship of man to his environment.

18. The environmental education staff should be responsible for teaching all on-site activities.

19. The environmental education staff should make arrangements for environmental-related field trips.

20. The environmental Education Coordinator should be a half-time teacher, half-time coordinator.

21. The Environmental Education Coordinator should not be a half-time teacher, but should devote full-time to the environmental education program.

TABLE 2-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO STAFF IDENTIFICATION

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
9.	75	16	9	(122)	79	10	11	(62)	72	22	7	(60)
10.	86	6	8	(121)	84	3	13	(63)	88	9	3	(58)
11.	39	45	16	(119)	43	40	17	(63)	34	52	14	(56)
12.	52	25	22	(122)	44	30	25	(63)	61	20	19	(59)
13.	13	53	34	(126)	5	53	42	(66)	22	53	25	(60)
14.	65	24	11	(124)	64	20	16	(64)	65	28	7	(60)
15.	77		19	(129)	75	1	24	(68)	79	8	13	(61)
16.	88	3	9	(126)	87	1	12	(67)	90	5	5	(59)
17.	83	9	9	(126)	82	6	12	(67)	83	12	5	(59)
18.	25	64	12	(118)	21	65	14	(63)	29	62	9	(55)
19.	69	19	12	(120)	70	16	14	(63)	68	23	9	(57)
20.	16	49	35	(123)	13	47	41	(64)	20	51	29	(59)
21.	49	25	26	(122)	44	23	33	(64)	55	26	19	(58)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 2-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
9.	82	7	11	(28)	67	22	11	(9)
10.	86	4	11	(28)	88	--	13	(8)
11.	37	48	15	(27)	24	44	33	(9)
12.	50	21	29	(28)	56	11	33	(9)
13.	3	43	53	(30)	--	44	56	(9)
14.	52	24	24	(29)	44	33	22	(9)
15.	61	3	35	(31)	67	11	22	(9)
16.	77	3	20	(30)	89	--	11	(9)
17.	83	--	17	(30)	89	--	11	(9)
18.	30	59	11	(27)	50	38	13	(8)
19.	67	13	20	(30)	56	11	33	(9)
20.	7	48	45	(29)	22	33	44	(9)
21.	43	23	33	(30)	50	25	25	(8)

TABLE 2-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
9.	72	21	7	(29)	73	23	5	(22)
10.	93	7	--	(29)	81	14	5	(21)
11.	37	56	7	(27)	35	50	15	(20)
12.	75	14	11	(28)	45	32	23	(22)
13.	39	50	11	(28)	9	61	30	(23)
14.	76	21	3	(29)	59	36	5	(22)
15.	86	7	7	(29)	74	9	17	(23)
16.	93	4	4	(28)	86	9	5	(22)
17.	82	14	4	(28)	82	14	5	(22)
18.	24	72	4	(25)	27	59	14	(22)
19.	67	26	7	(27)	76	24	--	(21)
20.	18	61	21	(28)	23	45	32	(22)
21.	64	21	14	(28)	45	32	23	(22)

TEACHER COMMENTS ON STAFF IDENTIFICATION

Statement #9

"To get this program underway, I feel teachers who are involved in writing curriculum should be given released time or extended contracts."

Statement #11

"Elementary teachers are 'loaded' with trying to write new programs. We have our hands full deciding how we can fit things together in the time we have. Give us a basic guide with plenty of options available. Then we can pick and choose and incorporate - If we have to scrounge from the beginning - it won't happen on any large scale, but if information is made easily accessible, many will see ways to implement it. Here's what we need in my opinion. Information such as:

1. Here's what its all about - Goals etc.
2. Here are the different areas and some things you can do.
3. Here is a list of people and phone numbers you can go to for help.
4. Use our material or take off on your own. When you have something good - share info with designated person so it can be extended in the future. I would like to see a hot-line (certain time each day or something definite so you don't have to try and try.) with a coordinator so that even for simple questions - quick answers or quick references.

Elementary teachers don't have the time to spend hours and hours deciding one little thing. The more materials that can be put at fingertips the better the chance that it will find its way into an already overcrowded day."

Statement #12

"I would like to commend the members of the Environmental Education Program for a job well done. It has been a pleasant and valuable experience to work with them this year."

Statement #13

"We have enjoyed them and profited from their knowledge."

"I do not feel well enough acquainted with this program to answer these questions. Has an overall presentation of the Environmental Education Program been given to teachers in this area? The Pennsylvania State University has developed a program, I believe at Stone Valley, using Outdoor Education Students. Three years ago, when I observed out there, the children were having excellent learning opportunities. It is an important part of the curriculum. Penn State could give us much help, but we no doubt, should be included in the planning and involvement."

Statement #15

"The University staff has not been available at our school to help with any environmental education except two sessions on the use of the compass before we went to Stone Valley which I could have done just as effectively if the compasses are available. No follow ups, etc. occurred."

"This program needs much more development and professional direction by specialists in the area of Outdoor Education. Teachers expected to pursue Outdoor Education with University and/or pupils require detailed training!!! This is the work for a Professional in Outdoor Education!"

Statement #16

"They seem most helpful and efficient people. It's great to know they are around."

"The environmental staff has been helpful, but their services are spread so thin that we have not been able to use them as much as we might. I strongly feel that a workshop would be helpful so that I personally would use the environmental staff to better advantage.

We have not gotten mileage out of the existing program due to:

1. Lack of communication - both parties responsible.
2. Lack of availability of personnel, equipment, resources, etc.

We could benefit tremendously from an active program. Let's get going."

Statement #18

"Environmental staff could do it until the teacher feels confident or learns.

Time should be taken to write up a district outdoor education unit for the on-site program."

Statement #19

"My knowledge of this program is rather limited. We did have a successful nature hike during the animal unit which was well-planned by the staff of this program."

Statement #20

"Gary Owen is in a better positon to evaluate staffing needs than I. However, I have felt that the service has been quite adequate. Given the choice, I would prefer a full-time co-ordinator to a half-time plus the PSU contract time. I feel that we have many resource people available through present teaching staff, state agencies, and parent/community volunteers. The big task seems to be to convince teachers to try this approach - it's really not so hard and a whole lot more interesting."

Resident Programming

The items in this area of the study dealt with role identification for the Stone Valley staff, pupil elimination and/or frequency of involvement, responsibility of financing, and policy for student participation in the resident outdoor school experience.

This study indicates that the teachers planning to attend the resident program should be given released-time to visit the resident school program and to plan with the resident staff the program for his class at the outdoor school. That is, more than four-fifths of the elementary teachers of State College Area Schools agreed with this item.

About three-fourth of the intermediate grade teachers who had attended resident school, and one-half of all elementary teachers indicated that the Stone Valley staff should not have all responsibility for the week resident experience. (See Table 3: Statements #22 and #23.)

As found in this study, the teachers indicate: that no child should be eliminated from the Stone Valley resident school program due to financial need; that all elementary students in the district should have one opportunity to attend a week resident school program at Stone Valley; that the District assume one-half of the financial responsibility for the resident school program. (See Table 3: Statements #24-26.)

In reference to the recent policy adopted by the State College Area School Board that each fifth grade student have the opportunity to attend the resident program during the 1972-73 school term, this data showed that about three-fourths of the elementary teachers agreed that a district-wide policy be established. (See Table 3: Statements #27-29.)

RESIDENT PROGRAMMING STATEMENTS FOR TABLE 3

22. Teachers planning to attend the resident program should be given released time to visit the resident school program and to plan with the resident staff the program for his class at the outdoor school.

23. The Stone Valley staff should have all responsibility for the week resident experience.

24. No child should be eliminated from the Stone Valley resident school program due to financial need.

26. All elementary students in the district should have one opportunity to attend a week resident school program at Stone Valley.

27. Each school should decide a policy on student participation in the resident school program at Stone Valley.

28. Each classroom teacher should decide a policy on student participation in the resident school program at Stone Valley.

29. A District-wide policy on student participation in the resident school program at Stone Valley should be established.

TABLE 3-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO RESIDENT PROGRAMMING

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
22.	88	2	11	(128)	85	--	15	(68)	90	3	7	(60)
23.	21	57	21	(122)	18	54	28	(65)	25	61	14	(57)
24.	98	2	--	(128)	99	1	--	(68)	97	3	--	(60)
26.	78	12	10	(128)	73	15	12	(67)	84	8	8	(61)
27.	46	48	6	(124)	47	44	9	(66)	45	52	3	(58)
28.	25	63	11	(123)	28	60	12	(65)	22	67	10	(58)
29.	70	13	17	(124)	65	11	25	(65)	76	15	8	(59)

TABLE 3-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
22.	84	--	16	(31)	100	--	--	(9)
23.	33	33	33	(30)	38	38	25	(8)
24.	100	--	--	(31)	89	11	--	(9)
26.	68	16	16	(31)	67	--	33	(9)
27.	33	57	10	(30)	44	44	11	(9)
28.	27	67	7	(30)	33	67	--	(9)
29.	70	13	17	(30)	67	23	--	(9)

TABLE 3-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
22.	87	7	7	(30)	90	--	10	(21)
23.	21	72	7	(29)	25	55	20	(20)
24.	100	--	--	(30)	95	5	--	(21)
26.	93	3	3	(30)	77	18	5	(22)
27.	34	66	--	(29)	60	35	5	(20)
28.	11	79	11	(28)	33	52	14	(21)
29.	90	3	7	(29)	62	24	14	(21)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 3-D

25. State College Area Schools should assume (UNDERLINE ONE: full, 2/3, 1/2, 1/3, none) financial responsibility for the Stone Valley resident school program.

	Full	2/3	1/2	1/3	None	(N)
ALL	16	8	55	12	8	(97)
PRIMARY	21	11	36	21	11	(47)
INTERMEDIATE	12	6	72	4	6	(50)
PRIMARY (no involvement)	35	9	35	13	9	(23)
INTERMEDIATE (resident with or without other aspects)	4	12	73	--	12	(26)
INTERMEDIATE (Other than resident)	25	--	69	6	--	(16)
INTERMEDIATE (no involvement)	13	--	75	13	--	(8)

TEACHER COMMENTS ON RESIDENT PROGRAMMING

Statement #22

"I enjoyed taking my class to Stone Valley. I think that children should be informed by the staff there as to the dangers of the outdoors if the children are careless. Also the (staff) should be more aware of the child's level so that they can use simple vocabulary and teach concepts more adequately."

Statement #23

"I don't believe that it is absolutely essential for the classroom teacher to spend the week with the class attending Stone Valley. I believe this should be an option for the teacher, just as it is for the children. This could be done by adequate staffing, and allowing those teachers within buildings who are especially interested to accompany various classes.

The present program depends heavily on PSU for the "resident" week at Stone Valley. The success of this depends upon volunteers at the University - my experience has been that the volunteers lack the maturity and commitment to work effectively with intermediate State College children. Much more could be worked-out with district resources IF THE DISTRICT WOULD BE WILLING TO PAY THE COSTS (OR ARRANGE FOR OUTSIDE SUPPORT). I don't think an over-night program is necessary - we are close enough to drive to worthwhile sites without staying overnight."

"I've spent three weeks at an outdoor camping experience. Two weeks were spent with 6th graders; 1 with 5th. Sure I was apprehensive at first, but it was truly a great experience for me and the kids. We really got to know each other - yet I didn't lose their respect or become their 'buddy'. We became friends and developed a great feeling which lasted all year.

The University staff at Stone Valley was exceptionally helpful but I found my participation limited."

Statement #25

"Those children unable to pay could receive funds from 'donations', etc. such as has been done this year."

Statement #26

"I disagree with a week for all grade levels. Wouldn't it be more practical to have primary (1-3) children attend for a day rather than over-night?" *

Statement #29

"Could there be minimums set by the District, then teacher and school additions made to these minimums?

There should be some area wide policies with some allowance for individual building policies. For example, with schools attending now in no ordered fashion, some children have several chances to attend Stone Valley and others have no opportunity."

* "Children below 3rd grade may not be ready for this."

On-Site Development

These statements were concerned with assessing teacher's opinions toward discipline, grouping, and staffing for on-site program development.

This study shows that: more than one-half of the teachers would not have discipline problems when conducting on-site activities with or without outside personnel from the environmental education staff; more than one-half of the teachers would conduct most school projects in the classroom; and, almost all teachers recognize small groups as most beneficial for on-site activities. (See Table 4: Statements #30-34.)

ON-SITE DEVELOPMENT STATEMENTS FOR TABLE 4

30. If I conducted an on-site activitity by myself, I might have discipline problems.

31. If I conducted an on-sight activity with outside personnel from the environmental education staff, I might have discipline problems.

32. On-site activities are more beneficial if the students can perform activities in small groups.

33. The present ratio of one on-site resource person for the elementary schools in the District is adequate.

34. Most school projects should be carried on in the classroom.

TABLE 4-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO ON-SITE DEVELOPMENT

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
30.	25	53	22	(125)	21	52	27	(66)	29	54	17	(59)
31.	20	56	24	(125)	21	47	32	(66)	19	66	15	(59)
32.	97	1	2	(128)	97	--	3	(66)	97	2	2	(62)
33.	16	42	41	(123)	14	31	55	(65)	19	55	26	(58)
34.	21	68	11	(116)	19	63	17	(63)	23	74	4	(53)

TABLE 4-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
30.	13	48	39	(31)	44	33	22	(9)
31.	10	48	42	(31)	22	56	22	(9)
32.	97	--	3	(30)	89	--	11	(9)
33.	10	23	67	(30)	25	25	50	(8)
34.	10	62	28	(29)	50	50	--	(8)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 4-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
30.	24	69	7	(29)	29	43	29	(21)
31.	17	72	10	(29)	19	62	19	(21)
32.	97	3	--	(30)	100	--	--	(23)
33.	17	66	17	(29)	19	52	29	(21)
34.	12	84	4	(25)	25	70	5	(20)

Teacher Preparation and Material Dissemination

Statements within this grouping were to assess teacher's opinions of present adequacy for teaching environmental education, co-operation for planning, willingness to participate in inservice programs, and initiating professional improvement.

This study seems to indicate that one of the most important functions of the environmental education staff is in the area of teacher education. Over one-half of the teachers feel they do not have enough background to teach environmental education, while over three-fourths of these teachers would like to work with the environmental education staff on class curriculum. (See Table 5: Statements #35 and #36.) Willing participation in future environmental education workshops and opportunities to observe other teachers conducting lessons in environmental education seem to be acceptable to more than three-fourths of the teachers in the study. (See Table 5: Statements #37, 40, 41.)

Environmental education materials should be available on loan from the Project Coordinator as attested to by almost all of the teachers. (See Table 5: Statement #38.)

TEACHER PREPARTATION AND MATERIAL DISSEMINATION
STATEMENTS FOR TABLE 5

35. I do not have enough background to teach environmental education adequately.

36. I would like to work with the environmental staff on my class curriculum.

37. Teachers should have an opportunity to observe other teachers conducting lessons in environmental education.

38. Environmental education materials should be available on loan from the Project Coordinator.

39. I would prefer to be an innovator of curriculum in any area but environmental education.

40. If given a choice in professional improvement, I would choose any area but environmental education.

41. I would enjoy participating in an environmental education workshop which would acquaint me with techniques and activities for classroom use.

TABLE 5-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO TEACHER PREPARATION AND MATERIAL DISSEMINATION

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
35.	62	26	10	(121)	75	15	9	(65)	52	38	11	(56)
36.	80	5	15	(120)	78	8	14	(64)	82	2	16	(56)
37.	91	2	7	(129)	90	1	9	(67)	94	2	5	(62)
38.	98	--	2	(125)	98	--	2	(64)	98	--	2	(61)
39.	4	67	29	(120)	2	69	30	(64)	7	64	29	(56)
40.	2	79	19	(120)	2	81	17	(63)	2	77	21	(57)
41.	89	4	7	(122)	86	3	11	(64)	91	5	3	(58)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 5-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
35.	72	14	14	(29)	67	22	11	(9)
36.	68	14	18	(28)	71	14	14	(7)
37.	87	3	10	(30)	100	--	--	(9)
38.	100	--	--	(30)	89	--	11	(9)
39.	--	59	41	(29)	13	25	63	(8)
40.	--	79	21	(28)	--	38	63	(8)
41.	76	3	21	(29)	100	--	--	(8)

TABLE 5-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
35.	48	41	10	(29)	50	39	11	(18)
36.	75	--	25	(28)	95	--	5	(21)
37.	90	--	10	(30)	96	4	--	(23)
38.	100	--	--	(30)	100	--	--	(22)
39.	3	83	14	(29)	11	53	37	(19)
40.	--	90	10	(29)	5	75	20	(20)
41.	90	10	--	(30)	90	--	10	(20)

TEACHER COMMENTS ON TEACHER PREPARATION AND MATERIAL DISSEMINATION

Statement #36

"No offense to staff but due to organization and overload - I find it easier to go it on my own, but I would like to find ways to expedite convenience and cooperation - teachers need the 'lift'."

Statement #38

"I found the Environmental Coordinator very helpful with information and activities. However materials such as films, filmstrips, machinery are not as easily assessible."

Statement #41

"Many teacher working on master's degree's can't take advantage of E. Ed. courses because they usually don't include credit toward master's work. This is a real disadvantage to us and the children."

Evaluation

The last section of this study pertained to evaluating the environmental education project and continuation of the program after the expiration of the Title III funds.

More than 80% of the teachers of State College Area endorse the evaluating of the project in the cognitive and affective domains by using pre-post instruments. (See Table 6: Statements #42 and 43.) The teachers showed no negative responses to continuing the environmental education project after the grant has expired. In fact, over 80% favored the continuation of the project. (See Table 6: Statement #44.)

EVALUATION STATEMENTS FOR TABLE 6

42. The effect of the environmental education program on the student should be evaluated.

43. Evaluation of the environmental education project should include both the cognitive and affective domains, and consist of pre-post instruments.

44. State College Area Schools should continue the Environmental Education Program after the ESEA Title III grant has expired.

TABLE 6-A

PERCENTAGE OF TEACHERS' RESPONSES ON STATEMENTS RELATED TO EVALUATION

Statement Number	All Teachers				Primary				Intermediate			
	A[1]	D[2]	No[3]	(N)[4]	A	D	No	(N)	A	D	No	(N)
42.	85	6	9	(122)	77	8	15	(62)	93	3	3	(60)
43.	83	3	14	(120)	75	5	20	(61)	90	2	8	(59)
44.	83	--	17	(121)	78	--	22	(63)	90	--	10	(58)

TABLE 6-B

PERCENTAGE OF TEACHERS' RESPONSES WHO WERE NOT INVOLVED IN ANY ASPECT OF THE ENVIRONMENTAL EDUCATION PROJECT

Statement Number	Primary				Intermediate			
	A	D	No	(N)	A	D	No	(N)
42.	77	10	13	(30)	89	11	--	(9)
43.	78	4	19	(27)	89	--	11	(9)
44.	62	--	38	(29)	75	--	25	(8)

1 = Percentage of teachers who agree with the statement.
2 = Percentage of teachers who disagree with the statement.
3 = Percentage of teachers who had no opinion for this statement.
4 = Number of teachers who responded to this statement.

TABLE 6-C

PERCENTAGE OF INTERMEDIATE TEACHERS' RESPONSES WHO WERE INVOLVED IN THE ENVIRONMENTAL EDUCATION PROJECT

Statement	Intermediate (resident with or without other aspects)				Intermediate (other than resident)			
	A	D	No	(N)	A	D	No	(N)
42.	93	3	3	(30)	95	--	5	(21)
43.	90	3	7	(29)	90	--	10	(21)
44.	90	--	10	(29)	95	--	5	(21)

TEACHER COMMENTS ON EVALUATION

Statement #44

"Educating children about the work they are inheriting is too important an activity to eliminate.

It is such a 'wealthy' district of Pennsylvania, why are we getting federal money? There are other places in the state and nation that could use it more. Most of the children here come from good backgrounds and have had most of the experiences at camp done before at home.

Why should we as taxpayers send 'wealthy' children to camp? The parents should be responsible for this.

As a student in sixth grade, I was fortunate enough to visit Stone Valley for a week. I look upon it as one of my best school experiences."

Statement #45 - Miscellaneous

"This questionnaire was much too long with many ambiguous questions. Teachers are too busy at this time of the year to be spending valuable time on lengthy forms.

Please limit yourself to fewer questions the next time.

Some of the terms used were not familiar to me. I answered the questions as best I could.

This questionnaire assumes the individual is familiar with many terms and titles. ex. Proj. Coordinator, environmental education staff, resident school, environmental education project."